system **60** is a dual stage air induction iron filtration system. In system **60** the first stage tank **61** is coupled to the second stage tank **62** by a tank adaptor **63**. The first stage tank **61** functions as the air tank for oxidation of the water and the second stage tank functioning as the filtration tank. The tank adaptor **63** couples the fluid flow connections **25** and **26** between the tanks **61** and **62**. The water treatment system **60** operates substantially similar to system **10** with the exception being that the oxidation occurs in a separate tank than the filtration. Further, the tanks are stacked and a single control valve **17** is utilized to direct the fluid flows.

During the filtering cycle, the source water flows from control valve **17** and out through the fluid connection **25***a* past the cascading member **90** into the tank **61**. After passing through the head of air **30**, it passes through the support media **44**. The water flows from the support media through a fluid flow path within the tank adaptor **63** and is discharged from fluid connector **25***b* into the tank **62**. Thereafter, the water flows through the filtration media **20** and the support media **21** to the fluid flow connection **26**. The water passes through the fluid flow connection **26** to the control valve **17**. In the backwashing cycle, the control valve directs incoming source water into the fluid flow connection **26**. The source water is discharged out of the pick up end **27** and passes upwardly through the support bed **21** and the filtration media **20**. The water fills the lower tank **62** and passes into the upper tank **61** via fluid connection **25***b*. The filling with water continues to push the air out of of the tanks **61** and **62** via fluid connection **25***a*. The air induction cycle utilizes the flow of source water through the control valve **17** to draw air into the interior of the tanks **61** and **62**. The source water flowing by the internal venturi draws/pulls air into the tanks through the air induction port **28**. The air flows between the two tanks through fluid connection **25***b*. As the source water and air flow into the interior of the tanks, the tanks are being filed with air as the water is passing out through fluid connection **26** to the drain.

With reference to FIGS. **7-10**, there are illustrated sectional views through the control valve **17**. The flow path in FIG. **7** corresponds to flow through the-valve in an air induction cycle. The air is sucked in through **200** and passes out of the valve to the tank at **201**. The injector **203** provides the venturi for pulling the secondary fluid into the valve. In one form, the present invention oversizes the injectors **203** relative to the design information from the manufacturer on the valve. However, the present application also contemplates the utilization of the control valve **17** having standard/normal sized injectors. The oversizing of the injectors allows the introduction of the air at relatively high rates relative to the standard/normal injector size. By increasing the injector size over the normal/standard design parameters, one can reduce the required cycle time.

The flow path in FIG. **8** corresponds to flow through the valve in a fill cycle. FIG. **9** illustrates the flow path through the valve corresponding to the filtering cycle. With reference to FIG. **10**, there is illustrated a flow path corresponding to a backwashing cycle.

While the invention has been illustrated and described in detail in the drawings and foregoing description, the same is to be considered as illustrative and not restrictive in character, it being understood that only the preferred embodiment has been shown and described and that all changes and modifications that come within the spirit of the invention are desired to be protected. It should be understood that while the use of the word preferable, preferably or preferred in the description above indicates that the feature so described may be more desirable, it nonetheless may not be necessary and embodiments lacking the same may be contemplated as within the scope of the invention, that scope being defined by the claims that follow. In reading the claims it is intended that when words such as "a," "an," "at least one," "at least a portion" are used there is no intention to limit the claim to only one item unless specifically stated to the contrary in the claim. Further, when the language "at least a portion" and/or "a portion" is used the item may include a portion and/or the entire item unless specifically stated to the contrary.

What is claimed:

1. A water treatment system, comprising:

a tank having a top and a bottom;

a control valve located at said top and in fluid communication with said tank, said control valve including a source water inlet adapted to be coupled to a source of water, a drain outlet, a treated water outlet and an air inlet, said air inlet is in fluid flow communication with a venturi disposed within said control valve, said control valve operable to control the passage of fluids between said inlets and outlets and said tank, said control valve controlling the flow of source water through said venturi to draw air through said air inlet and into said tank independently of the passage of treated water from said treated water outlet;

a fluid flow connection disposed in the tank and in fluid communication with said inlets and outlets, the fluid flow connection operable to convey fluids in two directions; and

a one way valve in fluid communication with said air inlet, said one way valve allowing the introduction of air to said air inlet.

2. The system of claim **1**, wherein said control valve is operable to control a plurality of water treatment cycles, and wherein said plurality of water treatment cycles including a filtering cycle, a backwashing cycle and an air induction cycle.

3. The system of claim **2**, wherein said control valve is a programmable device that allows the adjustment of the sequence and timing of a plurality of water treatment cycles.

4. The system of claim **1**, which further includes a pair of fluid flow passageways disposed in fluid communication between said control valve and said tank, wherein one of said pair of fluid flow passageways having a fluid flow inlet or outlet proximate said top and the other of said pair of fluid flow passageways having an inlet or outlet proximate said bottom.

5. The system of claim **4**, which further includes a medium within a portion of said tank, and wherein said other of the pair of fluid flow passageways has said inlet or outlet within said medium.

6. The system of claim **1**, wherein said tank has a diameter within a range of six inches to twenty-four inches;

which further includes a filtration medium within said tank;

which further includes a pair of fluid flow passageways disposed in fluid communication between said control valve and said tank, wherein one of said pair of fluid flow passageways having a fluid flow inlet or outlet proximate said top and the other of said pair of fluid flow passageways having an inlet or outlet proximate said bottom, wherein said other of the pair of fluid flow passageways has said inlet or outlet within covered by said medium; and

wherein said control valve is a programmable device that allows the adjustment of the sequence and timing of a plurality of water treatment cycles.